

### REMARKS

Claims 1-33 have all been rejected under 35 U.S.C. §103 as obvious over Rinck et al., U.S. 3,382,580 (“Rinck”), in view of Messinger et al., U.S. 5,185,933 (“Messinger”). The reasoning of the rejection is understood to be as follows: (1) Rinck shows shaving foils with apertures; (2) Messinger shows a foil with two different aperture shapes (his Fig. 8); (3) while the prior art does not show a Penrose parquet foil aperture pattern,

If one wanted to use this design for a shaving foil it would have been an obvious matter of choice of a variant pattern, wherein any variant pattern would inherently provide cutting as much as applicant's design. For example, paisley patterns, Ammann-Beenker patterns, Escher patterns, etc. would be capable of cutting as well and perhaps to at least the same degree.<sup>1</sup>

Applicants firmly traverse this rejection as not only a clearly improper application of §103 and contrary to established case law regarding obviousness determinations, but also based upon an unsupported and incorrect presumption, by the Examiner, as to the shaving performance of various hypothetical foil patterns.

As a first point, Applicants respectfully disagree, as a factual matter, with the Examiner's conclusion that, to one of ordinary skill in this art, it would have been an obvious matter of design choice to fashion a shaving foil with apertures having a quasi-periodic pattern executed according to a Penrose parquet or of at least a five-fold symmetry, as claimed. As discussed in the Specification, the general practice in the art is to provide shaving foils with either a uniform aperture size and shape, or at most a periodically recurring pattern. Such patterns are regular and repeatable and reasonably reduced to specification, drawing and tooling. There is simply nothing in the shaving foil art, to which the Examiner can point, explaining how one of ordinary skill would be motivated to incur the extra complication of a quasi-periodic pattern, such as a Penrose parquet.

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<sup>1</sup> Office Action, page 2, last two sentences.

Secondly, Applicants respectfully disagree with the Examiner's unsupported statement regarding the potential performance of other variant foil aperture patterns, effectively equating them with the patterns featured in Applicants' claims. Such a statement is pure speculation, improper in the context of patent examination, and irrelevant to whether selecting Applicants' pattern would have been an obvious design choice to one of ordinary skill. Applicants have clearly identified the unique features of the Penrose parquet (now featured on the Assignee's latest foil shaver) and patterns of at least five-fold symmetry in their Specification, and explained their relation to bar alignment, aperture area ratio and shaving performance:

It is a special characteristic of Penrose parquets that every pattern therein keeps on recurring, but not regularly. Penrose patterns are therefore a special class of non-periodic parquets, which are also referred to as quasi-periodic because each sub-pattern of the parquetry reoccurs an infinite number of times but not at regular intervals. Penrose parquets are composed of surface section elements with which a periodic parquet is not possible. In particular, Penrose parquets display a so-called five-fold symmetry, cover areas of any size completely and without overlap, and are comprised of at least two different types of surface section elements.

Penrose patterns can only be assembled in accordance with one special laying plan and are therefore clearly different from unordered or chaotic patterns. With Penrose patterns it is possible to achieve significantly greater ratios of aperture area to bar area than with chaotic patterns, which is particularly important for a shaving foil's degree of efficiency.<sup>2</sup>

Thirdly, Applicants submit that one of ordinary skill studying the Rinck reference would be disinclined to consider the sorts of patterns advanced by Applicants, as Rinck teaches away from patterns with "differently oriented hair entry openings," due at least to resulting variations in foil strength because of what he considers the "unfavorable arrangement of the bars between the openings."<sup>3</sup> Instead, Rinck touts a regular pattern of diamond-shaped apertures that he says

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<sup>2</sup> Specification, page 4, line 23 to page 5, line 4.

<sup>3</sup> Rinck, col. 1, lines 42-54.

avoids such disadvantages. Thus, not only does the base reference teach away from the invention, it disputes the Examiner's presumption regarding equality of patterns.

The Examiner is respectfully urged to recall that, particularly in structurally simple inventions, it is the *concept* animating the new structure, and not minor differences between the new structure and prior structures, that is the key to patentability.<sup>4</sup> In the leading case of Eibel Co. v. Minnesota & Ontario Paper Company,<sup>5</sup> for example, the only structural change was increasing the angle at which stock was fed into a widely-used type of papermaking machine; but it was based on a non-obvious *conception*, and accordingly the Supreme Court found invention and patentability. Where there is an important new contribution in concept and solution of a problem, only slight changes in structure are needed for patentability.<sup>6</sup> “[T]hough the structure may be but a simple expedient when the novel concept is realized, that structure may not be obvious to the skilled worker in the art where the prior art has failed to suggest the problem or conceive of the idea of its elimination.”<sup>7</sup>

The Examiner is respectfully reminded that it is usually in the context of improvements to mechanically simple products that the temptation to focus on the structural details, rather than the concept animating the invention, is so alluring.<sup>8</sup> However, “[t]he criterion of §103 is not whether the differences from the prior art are ‘simple enhancements’ but whether it would have been obvious to make the claimed structure.”<sup>9</sup>

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<sup>4</sup> See Gillette Co. v. S.C. Johnson & Son, Inc., 919 F. 2d 720, 724, 16 U.S.P.Q.2d 1923 (Fed. Cir. 1990) (“Focusing on the obviousness of substitutions and differences, instead of on the intention as a whole, is a legally improper way to simplify the often difficult determination of obviousness.” (internal citations omitted)).

<sup>5</sup> 261 U.S. 45 (1923).

<sup>6</sup> See, e.g., Eibel, 261 U.S. at 68. See also Gillman v. Stern, 46 U.S.P.Q. 430, 432 (2<sup>nd</sup> Cir. 1940), cert. denied, 311 U.S. 718 (1941) (“Constitutionally only ‘discoveries’ can be patented at all, and the ingenuity needed for the new conception, not the amount of physical readjustment, is the test of a valuable ‘discovery.’”) and Hutzler Bros. Co. v. Sales Affiliates, 164 F. 2d 260, 75 U.S.P.Q. 259, 265-66 (4<sup>th</sup> Cir. 1947) (“When old devices are changed at all, the changed may be dictated by a new conception, which it took originality to conceive.... In such cases it requires but little physical change to make an invention.”) (quoting Regar & Sons v. Scott & Williams, 63 F.2d 229, 231 (2<sup>nd</sup> Cir. 1933) (Learned Hand, J.)).

<sup>7</sup> In re Hortman, 264 F.2d 911, 121 U.S.P.Q. 218, 219 (C.C.P.A. 1959).

<sup>8</sup> See, e.g., Ruiz v. A.B. Chance Co., 234 F.3d 654, 664, 57 U.S.P.Q.2d 1161 (Fed. Cir. 2000) (“Where the invention is less technologically complex ... the danger increases that the very ease with which the invention can be understood may prompt one to fall victim to the insidious effect of a hindsight syndrome.”) (citation omitted).

<sup>9</sup> Continental Can Co. v. Monsanto Co., 948 F.2d 1264, 1273, 20 U.S.P.Q.2d 1746 (Fed. Cir. 1991).

Applicants also note that the rejected claims depending from claims 1 and 13 include several other features for which the Examiner has so far made no attempt to show any corresponding disclosure or motivation in the prior art; rather, all of the recited features are dismissed as 'obvious design choice.' Applicants submit that the Examiner has failed to meet his burden of showing a specific motivation in the prior art that would have led one of ordinary skill in this art to have incorporated each and every one of these claim limitations in the context of the broad claims.

Thus, Applicants respectfully submit that no *prima facie* case of obviousness has been presented against claims 1 and 13 and the claims depending from them, and urges the Examiner to withdraw this rejection and allow the claims. Should there remain any further question about the allowability of the claims over the cited references, or should the Examiner consider another ground of rejection, the undersigned attorney remains available for telephone discussion in order to quickly resolve such issues and advance the case for allowance.

No fees are believed due. Please apply any charges or credits to deposit account 06-1050, referencing the above attorney docket number.

Respectfully submitted,

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